REMARKS

As shown in Figures 4c and 4d, Appellant's invention comprises a suspension having optimal sag. Optimal sag is achieved by having vertical alignment between the torsional axis 405 of the suspension and the pivot point 407 of the slider 404. Thus, the torsional axis 405 is adjusted to vertically "pass through" the pivot point 407. Any vertical mismatch between the torsional axis and the pivot point (e.g., either positive (Figures 4a and 4b) or negative (Figures 4e and 4f)) causes excess track misregistration (TMR).

The cited primary reference, *Larson*, focuses on what it calls a "water slide" configuration. See title. The term "water slide" refers to the ramp-like shape of the supporting member 322 that vertically offsets the lift tab 304, as shown in Figures 3B and 4. Applicant respectfully asserts that *Larson's* geometry is the same as that shown in Applicant's Figure 4a, at element 402. As explained in Applicant's specification (page 4, lines 3-14), this geometry results in positive sag. Moreover, *Larson* does not contain the terms "torsion" or "pivot" because, unlike Applicant's invention, it is not concerned with torsional axes and pivot points. Rather, *Larson* is concerned with the distance between the head/ramp and the disk. Col. 2, lines 50-63; Col. 7, lines 2-7.

The Examiner states that *Larson's* torsional axis is the "longitudinal centerline of load beam." Page 2, paragraph 3. However, the terms "torsion", "torsional", and "pivot" never appear in *Larson*. The Examiner also states that, "the torsional axis approximately passing through the pivot point (Col 6, lines 26-29)". Page 2, paragraph 3. However, that passage in *Larson* actually states, "a dimple 356 for allowing the magnetic head to gimbal over the dimple to conform over a disk recording surface." Even if one assumes that the dimple 356 is the pivot point, and that "to gimbal" is equivalent to defining a torsional axis (there is no support for either proposition), *Larson* only states that the head is allowed to "gimbal over the dimple." This is a completely different statement than "a torsional axis passing through a pivot point," as required by Applicant's invention.

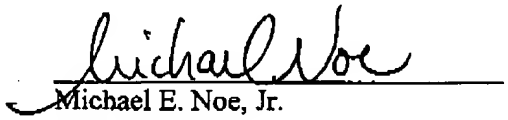
With the primary reference *Larson* effectively overcome, arguments against the secondary references are moot. Notwithstanding, the Examiner cites *Manzke* (Col. 3, lines 4–5) for the proposition that the load beam is formed of magnesium or a magnesium rich alloy. However, those materials are specified for "Beam section 9 and head tower 10," not the load beam. Col. 3, lines 1–2. Comparison of the circa 1980's architecture of *Manzke* to modern designs reveals that beam section 9 and head tower 10 are equivalent to today's actuator arm and mount plate. Importantly, the "hinge" of *Manzke* (web 22 in Figure 1B) is located at mounting means 16, its equivalent "load beam" is distal to the hinge at head unit 7, and it is mounted to the head tower 10 with screws 18. Defining these equivalents is critical because the materials specification used by the Examiner relies on the opposite interpretation. Appellant maintains that magnesium is only specified for the arm and mount plate (i.e., beam section 9 and head tower 10), but not for the load beam (i.e., head unit 7). Thus, *Manzke* cannot be used to reject Applicant's claims as relied upon by the Examiner.

Each of the two independent claims (Claims 1 and 7) require, "said torsional axis approximately passing through said pivot point." Since *Larson* does not mention the terms torsion or pivot, it is impossible to support the assertion that *Larson* anticipates Claims 1 and 7. The geometry of *Larson* (specifically Figure 4) bears a strong resemblance to Applicant's Figure 4A, which renders undesirable "positive sag" as explained above. Furthermore, no pivot point for a head gimbal is established in *Larson*. Without a pivot point, one cannot then state that another undefined element (i.e., the torsional axis) "passes through" the pivot point. Claims 1, 7, and all of their dependent claims are clearly allowable over *Larson*.

Dependent Claims 3, 4, 9, and 10 address the material content of the load beam. The Examiner has mischaracterized *Manzke* to stand for the propositions contained in those claims. Although *Manzke* specifies some materials for its actuator arm and mount plate (i.e., beam section 9 and head tower 10), it is silent as to the content of its modern-day equivalent load beam (i.e., head unit 7). Thus, Claims 3, 4, 9, and 10 are patentable over *Larson* in view of *Manzke*.

It is respectfully submitted that the claims are in condition for allowance and favorable action is requested. No fee for an extension of time or other fees are believed to be required. However, in the event that one or more fees are required, please charge them to **Hitachi Global Storage Technologies' Deposit Account Number 50-2587**.

Respectfully submitted,



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